

## **SPLASH 2004: NOAA Ship McArthur Weekly Science Report**

30 July 2004

Jay Barlow, Cruise Leader

### **SCIENCE SUMMARY: Thursday, 22 July to Wednesday, 28 July 2004**

This week brought the end of the wonderfully successful Leg 1 of the SPLASH cruise. We started with killer whales on Thursday. The group had a few of the “open” saddle patterns that typify the “resident” type killer whale, but we could not rule out the possibility that they were the more mysterious “offshore” variety. Hopefully the biopsy samples and photos we took will help to resolve this question.

Our short remaining week was spent working dense patches of humpback whales that were at the margins of Albatross Bank, south of Kodiak Island. We searched mostly from 15 to 30 miles offshore, to avoid duplicating the same areas that Kate Wynne will be sampling from her smaller vessel. In places, the humpbacks were so thick that we could just point a camera in any direction and take a fluke photograph. Well, maybe that is a bit of an exaggeration, but it was often difficult to decide which of several whales we’d pursue next. In one dense patch, we even had two launches out, while Richard lined up the McArthur II for fluke shots.

It appears that Albatross Bank is well named. Among hundreds of black-footed albatrosses, we found two of the rare short-tailed albatross. Of course, Richard called for the ship to turn in the direction of one that was sitting on the water (he insists that there were also humpbacks in the same general direction), and we got some very nice close-up photos.

We also may have found half of a blue whale on Albatross bank. Actually, it was recorded as a fin whale because it had a white right jaw, but the color and fin shape were all wrong for a fin whale. It was mottled, like a blue whale, and had only a stub of a dorsal fin. Perhaps this is one of those blue/fin whale hybrids that have been seen before. Fortunately, we obtained a biopsy that will, hopefully, help confirm its pedigree.

Our weather karma ran out on Sunday, as a low pressure system overtook us and gave us Beaufort 6 and heavy rain. Taking a hint that we were no longer welcome on the high seas, we beat for the port of Kodiak. Home, sweet home, until Friday. We said goodbye to five outgoing scientists (and friends), and hello to five new ones. Thank you Katie Roberts, Robert Holland, Julie Oswald, Lilian Carswell, and Richard Rowlett for all your hard work and good company.

In port, we had a potentially disastrous freezer failure. Apparently the electrical circuit for the scientific chest freezer was tripped and was not reset after some tests. The chest freezer may have been off for 24 hours before this was noticed, and our precious biopsy samples were completely thawed by that time. We don’t yet know what this will

mean for analysis of these samples. Shannon reported that the samples “didn’t smell bad yet” which give us hope that they will be good for genetic studies at least. Measures are being put in place to prevent this from happening again.

### **RE-SIGHTING NEWS:**

The blue whale match (one Alaska animal with a southern Californina animal) is now 99% confirmed by John Calambokidis. Final confirmation is still awaiting the highest resolution photographs.

### **Sightings and Effort Summary for Marine Mammals**

Date	Start/Stop Time	Position	Total Distance	Avg. Beaufort
072204	0620	N56:07.27 W154:48.06	64.1 nmi	2.5
	2047	N56:11.80 W153:04.12		
072304	0621	N56:24.24 W153:11.51	20.6 nmi	2.0
	1532	N56:58.83 W152:43.46		
072404	0617	N56:42.73 W151:46.34	6.9 nmi	3.4
	1735	N57:11.65 W151:30.98		
072504	0827	N58:32.10 W151:30.34	10.5 nmi	5.7
	1124	N58:13.17 W151:01.22		

CODE	SPECIES	TOT#
046	Physeter macrocephalus	1
051	Mesoplodon sp.	1
070	Balaenoptera sp.	1
071	Balaenoptera acutorostrata	1
074	Balaenoptera physalus	19
076	Megaptera novaeangliae	18
111	Orcinus orca (resident)	1
TOTAL		42

note: Dall’s & harbor porpoises and pinnipeds are not included.

### **Biopsies (Juan Carlos Salinas)**

Species	Weekly	Cumulative
Humpback whale	49	183
Fin whale	4	29
Blue whale	0	3
Sperm whale	0	4
Killer whale	2	17
Baird’s beaked whale	0	3
Dall’s porpoise	0	1
Cuvier’s beaked whale*	1	1
*dead when sampled		

### **Photo-Project (Holly Fearnbach)**

Species	Weekly #	Cumulative #
Humpback whale		
Catalog-quality flukes	110	304
Fin whale dorsal IDs	4	42
Sperm whale fluke IDs	0	9
Blue whale dorsal IDs	0	3
Killer whale dorsal IDs	10	54
Baird's beaked whales	0	15
Northern right whale dolphins*	0	1
Pacific white-sided dolphins*	0	3
Cuvier's beaked whale (dead)	0	1
Steller sea lion	0	1

\*number of groups photographed

### **Acoustics Squeakly Report**

(none)

### **Oceanographic Operations (Lillian Stuart)**

Date	Number CTDs	
7/22	1	
7/23	1	
7/24	1	
7/25	0	In port
7/26	0	“
7/27	0	“
7/28	0	“